Application No. 10/769,552 Amendment Reply to Office Action of May 30, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A rotary indexing table comprising a stationary base unit (16) and a plate (10) rotatably supported thereon and drivable relative to the base unit (16) by means of a drive, characterized in that wherein the drive is formed by a plurality of individual drive elements (1, 2) arranged in [[the]] a circumferential region of the plate, the individual drive elements comprising individual permanent magnets that are uniformly distributed adjacent to one another along the total circumference of the plate and substantially diametrically opposite one another with respect to an axis of rotation of the plate, and the base unit having at least four electromagnets which lie opposite the permanent magnets coupled to the plate (10).

Claims 2-5 (canceled).

Claim 6 (currently amended): A rotary indexing table in accordance with claim 1, eharacterized in that wherein the individual drive elements (1, 2) are acted on by an air cooling system (13, 13').

Claim 7 (currently amended): A rotary indexing table in accordance with claim 6, eharacterized in that wherein a respective air cooling element (13, 13') is provided for each half of the individual drive elements (1, 2) arranged in the circumferential region of the plate (10).

Claim 8 (currently amended): A rotary indexing table in accordance with claim 7, eharacterized in that wherein the two air cooling elements (13, 13') arranged adjacent to one another and at least one exhaust air aperture (14) are arranged substantially diametrically opposite one another with respect to the axis of rotation of the plate (10).

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Claim 9 (currently amended): A rotary indexing table in accordance with claim 1, eharacterized in that wherein an encoder (3, 4) is provided for the determination of the relative position between the plate (10) and the base unit (16).

Claim 10 (currently amended): A rotary indexing table in accordance with claim 9 characterized in that wherein the plate (10) is provided with code markings (4) distributed over its circumference, in particular including at least one reference mark.

Claim 11 (currently amended): A rotary indexing table in accordance with claim 9, eharacterized in that wherein the base unit (16) is provided with an optical, a magnetic or an inductive sensor (3) for the detection of the code markings (4).

Claim 12 (currently amended): A rotary indexing table in accordance with claim 1, eharacterized in that wherein the base unit (16) has a brake unit [[(5)]] cooperating with the plate (10) and in particular loaded by compressed air.

Claim 13 (currently amended): A rotary indexing table in accordance with claim 12, characterized in that wherein the brake unit [[(5)]] is in its state permitting a rotation of the plate (10) when the compressed air load is present.

Claim 14 (currently amended): A rotary indexing table in accordance with claim 1, eharacterized in that wherein the plate (10) and the base unit (16) are each made in ring shape, with the central openings of the plate (10) and of the base unit (16) being substantially aligned with one another.

Claim 15 (currently amended): A rotary indexing table in accordance with claim 1, characterized in that wherein the plate (10) is rotatably supported on the base unit (16) via a wire four-point bearing [[(8)]].